|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Application No.                              | Applicant(s)                  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|-------------------------------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Application No.                              | Applicatings                  |
| Notice of Allowability                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 10/728,643                                   | CHOI ET AL.                   |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Examiner                                     | Art Unit                      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | John L. Goff                                 | 1733                          |
| The MAILING DATE of this communication appears on the cover sheet with the correspondence address All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS. This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308. |                                              |                               |
| 1. X This communication is responsive to the application filed 12/5/03.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                              |                               |
| 2. The allowed claim(s) is/are <u>1-14</u> .                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                              |                               |
| 3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  a) ☐ All b) ☐ Some* c) ☐ None of the:                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                              |                               |
| 1. Certified copies of the priority documents have been received.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                              |                               |
| 2. Certified copies of the priority documents have been received in Application No                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                              |                               |
| 3. Copies of the certified copies of the priority documents have been received in this national stage application from the                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                              |                               |
| International Bureau (PCT Rule 17.2(a)).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                              |                               |
| * Certified copies not received:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                              |                               |
| Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.                                                                                                                                                                                                                                                                                                                 |                                              |                               |
| 4. A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.                                                                                                                                                                                                                                                                                                                                                           |                                              |                               |
| 5. CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                              |                               |
| (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                              |                               |
| 1) 🗌 hereto or 2) 🔲 to Paper No./Mail Date                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                              |                               |
| (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                              |                               |
| Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).                                                                                                                                                                                                                                                                                                                            |                                              |                               |
| 6. DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.                                                                                                                                                                                                                                                                                                                                                                            |                                              |                               |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                              |                               |
| Attachment(s)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 5 Mary 10 6 10                               | 1 . 1 A . I' . I' . (DTO 150) |
| 1. Notice of References Cited (PTO-892)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | _                                            | atent Application (PTO-152)   |
| 2. Notice of Draftperson's Patent Drawing Review (PTO-948)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 6. ⊠ Interview Summary<br>Paper No./Mail Dat |                               |
| 3. A Information Disclosure Statements (PTO-1449 or PTO/SB/0 Paper No./Mail Date 3/8/04                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                              |                               |
| 4. Examiner's Comment Regarding Requirement for Deposit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 8. 🛛 Examiner's Stateme                      | nt of Reasons for Allowance   |
| of Biological Material                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 9.                                           |                               |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                              |                               |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                              |                               |

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## **EXAMINER'S AMENDMENT**

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

- 2. Authorization for this examiner's amendment was given in a telephone interview with Steve Witters on 12/13/05.
- 3. The application has been amended as follows:

## In the Specification:

- 4. On Page 2, line 3 delete "4" and insert therein - 10 -.
- 5. On Page 2, line 3 following "April 4, 2002, and" insert - now U.S. Patent 6,758,878 -.

## In the Claims:

- 6. Delete claim 15.
- 7. Claims 1-14 are allowed.

## **REASONS FOR ALLOWANCE**

8. The following is an examiner's statement of reasons for allowance:

The prior art of record fails to teach or suggest a method of forming a filter comprising providing a thermobondable pleated filter medium layer, heat softening opposed edges of the layer, compressing the softened edges to form flat border edges on the layer, mounting the pleated filter medium layer in a thermobondable flow-through border frame wherein the frame

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includes support edges in facing relationship with the compressed, flat border edges, and thermobonding the facing edges to form a filter.

Davies (U.S. Patent 1,890,499) discloses a method of forming a filter comprising providing a pleated filter medium layer, compressing opposed edges of the layer to form flat border edges on the layer, and covering the flat border edges with a border frame. However, Davies fails to teach using a pleated filter medium layer formed of thermobondable material, compressing the opposed edges of the pleated filter medium layer by heat softening, using a thermobondable flow-through border frame, and thermobonding the pleated filter medium layer and border frame. Kershaw (U.S. Patent 3,938,973) discloses a method of forming a filter comprising providing a filter medium layer, mounting the filter medium layer in a thermobondable border frame, and thermobonding the filter medium layer and border frame to form a filter. However, Kershaw fails to teach using a pleated filter medium layer, heat softening and compressing opposed edges of the pleated filter medium layer, and using a flow-through border frame.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **John L. Goff** whose telephone number is **(571) 272-1216**. The examiner can normally be reached on M-F (7:15 AM - 3:45 PM).

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on (571) 272-1226. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

John L. Goff

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RIMARY EXAMIN GROUP 1300

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